

Optibelt-CAP Drive Calculation



Sender

Tel. No. :
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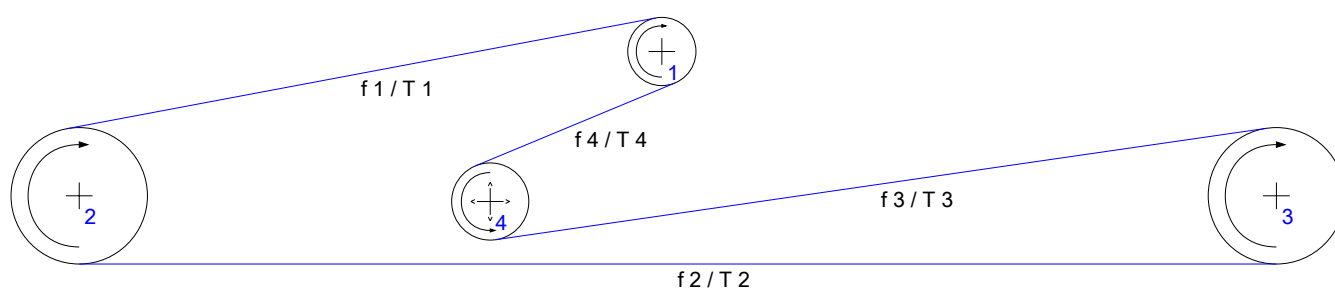
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Length-Calculation

Calc.-No. : C000000320
Project : 0001

Date : 26.01.2015
Drawing No. : 0001

SN : 11116858
Drive : 0001



timing belt profile Optibelt OMEGA Timing Belts 1200 5M 15

Standard pitch length	Lw :	1200	mm
Number of teeth	zr :	240	
Pitch	t :	5	mm
Width	b :	15	mm
Belt speed	v :	1,25	m/s
Actual service factor	c2 :	1,79	
Transmitted power	PÜ :	0,37	kW

Our 'General Conditions of Sale' are applicable.



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pulley 1 15-5M-15

Diameter	dw_1	: 23,87	mm
Number of teeth	z	: 15	
Teeth in mesh	ze	: 8	
Speed	n_1	: 1000	1/min
Actual drive ratio	i	: ---	
power	P_{an}	: 0,21	kW
Torque	Nm	: 2,0	Nm
Static belt tension	T_1	: 92	N
Shaft load	Sa	: 183	N
Span length	L	: 209,73	mm
frequence	f_1	: 99,88	Hz
x-coordinate	x	: 0,00	mm
y-coordinate	y	: 0,00	mm

pulley 2 30-5M-15

Diameter	dw_2	: 47,75	mm
Number of teeth	z	: 30	
Teeth in mesh	ze	: 15	
Speed	n_2	: 500	1/min
Actual drive ratio	i	: 2,00	
power	P_{ab}	: 0,21	kW
Torque	Nm	: 4,0	Nm
Static belt tension	T_2	: 92	N
Shaft load	Sa	: 184	N
Span length	L	: 419,00	mm
frequence	f_2	: 50,00	Hz
x-coordinate	x	: -203,91	mm
y-coordinate	y	: -50,50	mm

pulley 3 30-5M-15

Diameter	dw_3	: 47,75	mm
Number of teeth	z	: 30	
Teeth in mesh	ze	: 16	
Speed	n_3	: 500	1/min
Actual drive ratio	i	: 2,00	
power	P_{ab}	: ---	kW
Torque	Nm	: ---	Nm
Static belt tension	T_3	: 92	N
Shaft load	Sa	: 184	N
Span length	L	: 272,62	mm
frequence	f_3	: 76,84	Hz
x-coordinate	x	: 215,09	mm
y-coordinate	y	: -50,50	mm

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pulley 4 special pulley

Diameter	dw_4	: 27,00	mm
Number of teeth	z	: ---	
Teeth in mesh	ze	: ---	
Speed	n_4	: 884	1/min
Actual drive ratio	i	: ---	
power	P_{ab}	: ---	kW
Torque	Nm	: ---	Nm
Static belt tension	T_4	: 92	N
Shaft load	Sa	: 183	N
Span length	L	: 75,61	mm
frequence	f_4	: 277,04	Hz
x-coordinate	x	: -60,07	mm
y-coordinate	y	: -52,50	mm
X-input coordinate	xs	: -55,41	mm
Y-input coordinate	ys	: -52,50	mm
X-deviation from theoretical	Dxs	: -4,66	mm
Y-deviation from theoretical	Dys	: 0,00	mm